

Warm Up

Compare $10\ \Omega$ and $6\ \Omega$ resistors in a series circuit and a parallel circuit.

Two resistors, one $10\ \Omega$ and the other $6\ \Omega$, are connected in series. The resistors are then connected to a 12-V battery.

1. Draw the circuit.
2. What is the total resistance of the circuit?
3. What is the current in the circuit?
4. What is the current through each resistor?
5. What is the voltage drop at each resistor?

Two resistors, one $10\ \Omega$ and the other $6\ \Omega$, are connected in parallel. The resistors are then connected to a 12-V battery.

1. Draw the circuit.
2. What is the current through each resistor?
3. What is the total current in the circuit?
4. What is the equivalent resistance of the circuit?